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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/357,435	07/20/1999	WAYNE E. STEEVES	065446.0114	9252

7590 02/25/2005

AXCESS INC  
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EXAMINER
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LEE, BENJAMIN C

ART UNIT	PAPER NUMBER
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2632

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/357,435

**Applicant(s)**

STEEVES, WAYNE E.

**Examiner**

Benjamin C. Lee

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 32 and 33 is/are allowed.  
6) ☒ Claim(s) 1-4, 6-12, 14-31 and 34-38 is/are rejected.  
7) ☒ Claim(s) 5 and 13 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) In claim 31, line 1, the term “the primary tags”, in its plural form, lacks antecedence from the singular “primary tag” of claim 28.

### *Claim Rejections - 35 USC § 103*

2. Claims 1, 6-9, 14-16 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woolley et al. (US pat. #5,804,810 cited by Applicant) .

1) Regarding claims 1, 7-8:

Woolley et al. discloses a method for monitoring assets using RF tags, comprising: using a netmaster tag to periodically poll (col. 33, lines 6-7) primary tags (assistant netmaster tags according to col. 31, lines 16-29, or tag having second highest ID number according to col. 49, lines 41-46), so that in response to a polling event for one of the primary tags, the primary tag transmits a query message for linked tags within an operational range of the primary tag, each linked tag receiving the query message transmits a response message including an identification of the linked tag, and the primary tag is able to determine and indicate/report **changes** in the **existence and location** over time of the linked tags to a base station (col. 49, lines 42-44; col. 31, lines 39-43; col. 32, lines 6-10; col. 17, lines 3-9 and col. 16, lines 49-52) as well as **new** or

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**missing** linked tags status (col. 31, lines 30-33), whereby linked tags are those determined/identified to be neighboring tags, and user of the base station is able to determine whether a particular linked tag and its associated asset is present in the system via an interrogator comprising a transmitter and a receiver (col. 17, lines 3-9 and col. 16, lines 49-52).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that in order to determine the **changes** in the **existence** and **location** of the linked tags as well as identifying **new** or **missing** linked tags using the neighboring-tags-determination algorithm of Woolley et al., each of the primary tags needs to store the identification of each linked tag associated with the primary tag once they'd been determined as neighbors, so that subsequent neighboring-determination allows the primary tag to receive the linked tag response messages and compare the identifications in the response messages to the identifications stored for each linked tag associated with the primary tag, i.e. a before-and-after-type comparison of linked/neighboring tags identifications in order to determine changes over time including changes in existence and location.

2) Regarding claim 6, Woolley et al. renders all of the claimed subject matter obvious as in claim 1, whereby:

The netmaster tag of Woolley et al. or the interrogator of the monitoring device 15 according to col. 17, lines 3-9 and col. 16, lines 49-52 constitutes the claimed "a base station".

3) Regarding claims 9 and 14-16, Woolley et al. renders all of the claimed subject matter obvious as in the consideration of claims 1 and 6-8, respectively.

4) Regarding claim 34-38, Woolley et al. renders all of the claimed subject matter obvious as in the consideration of claims 1 and 6, whereby:

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Since the user of the base station of Woolley et al. is able to determine whether a particular linked tag and its associated asset is present in the system via an interrogator comprising a transmitter and a receiver (col. 17, lines 3-9 and col. 16, lines 49-52), it would have been obvious to one of ordinary skill in the art at the time of the claimed invention for the primary tag to generate first and second alarms (signals) to the interrogator corresponding to whether second tags are present or not within the operating range of the primary so that the user can be positive informed of the status of whether tags and their associated assets are present.

3. Claims 2-4, 10-12 and 17-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woolley et al. in view of Bledsoe (US pat. #5,742,237).

1) Regarding claims 2-4, Woolley et al. renders all of the claimed subject matter obvious as in claim 1, while:

Bledsoe teaches in the same object monitoring art using tag location monitoring the known feature of providing a notification to the user of monitored asset status once monitored tags have been detected as being missing (col. 7, lines 34-42 and col. 13, lines 17-22).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to provide notification, as in the form of alarm condition generation, for determined missing tags associated with assets as taught by Bledsoe by the primary tag of Woolley et al. in response to the determined monitored asset status indication of one or more missing tags/assets so as to include asset-missing status as a useful asset status in asset status monitoring, which status indication would indicate that no linked tags are present in the operating range of the primary tag when all are missing.

2) Regarding claims 10-12, Woolley et al. renders all of the claimed subject matter obvious as in claim 9, plus the consideration of claims 2-4 in view of Bledsoe.

3) Regarding claims 17-20 and 25:

Woolley et al. discloses an asset monitoring system using RF tags, comprising: a primary RF tag (netmaster) having storage unit (memory), transmitter, receiver and controller (see circuit detail of Figs. 12 and 15) to periodically poll via an inherent polling engine (col. 33, lines 6-8) via its transmitter (polling request) a plurality of linked tags in its operational range (assistant netmaster and other neighboring tags according to col. 31, lines 16-43; col. 32, lines 4-10; and col. 49, lines 20-46), and the receiver receives response messages from tags within its operating range, the response message each including an identification of the tag generating the response message, and the primary tag through its controller is able to determine and indicate/report **changes in the existence and location** over time of the linked tags (col. 49, lines 42-44; col. 31, lines 39-43 and col. 32, lines 6-10) as well as **new or missing** linked tags status (col. 31, lines 30-33) to a base station (interrogator comprising transmitter and receiver of monitoring device 15 according to col. 17, lines 3-9 and col. 16, lines 49-52), whereby linked tags are those determined/identified to be neighboring tags, and user of the base station is able to determine whether a particular linked tag and its associated asset is present in the system (col. 17, lines 3-9 and col. 16, lines 49-52).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that in order to determine the **changes in the existence and location** of the linked tags as well as identifying **new or missing** linked tags using the neighboring-tags-determination algorithm of Woolley et al., each of the primary tags needs to store the identification of each

linked tag associated with the primary tag once they'd been determined as neighbors, so that subsequent neighboring-determination allows the primary tag to receive the linked tag response messages and compare the identifications in the response messages to the identifications stored for each linked tag associated with the primary tag, i.e. a before-and-after-type comparison of linked/neighboring tags identifications in order to determine changes over time including changes in existence and location.

Furthermore, Bledsoe teaches in the same object monitoring art using tag location monitoring the known feature of providing a notification to the user of monitored asset status once monitored tags have been detected as being missing (col. 7, lines 34-42 and col. 13, lines 17-22).

In view of the teachings by Woolley et al. and Bledsoe, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to provide notification, as in the form of alarm condition generation through a report engine and transmitted by the transmitter, for determined missing tags associated with assets as taught by Bledsoe by the primary tag of Woolley et al. in response to the determined monitored asset status indication of one or more missing tags/assets so as to include asset-missing status as a useful asset status in asset status monitoring, which status indication would indicate that no linked tags are present in the operating range of the primary tag when all are missing.

4) Regarding claims 21 and 26-27, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in claim 17 and 25, respectively, whereby:

Woolley et al. discloses the primary RF tag receiving via a receiver the response messages, a status request from the base station, and generating via the polling engine the polling

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request in response to the status request; wherein the base station interrogates or transmits and receives signals from the primary tag, but not the claimed using first and second disparate frequencies and respective first and second receivers as claimed

However, the concept of using separate, disparate communication frequencies for separate/different communications at the same localized device/station to provide separate channels and interference free communication is well known in the communications art. Thus, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to: 1) separate the response message-receiving communications from the linked tags and the status request signal from the base station on the primary frequency tag, as well as 2) separate the transmitting signals from the receiving signals, of Woolley et al. and Bledsoe by using disparate frequencies, and corresponding separate first and second receivers in the case of the primary tag, in order to prevent signal and communications interference.

5) Regarding claim 22, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in the consideration of claim 17.

6) Regarding claims 23-24, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in claim 22, including:

--the claimed wherein the primary RF tag is an active tag (powered by battery) and the one or more secondary RF tags are passive tags (powered by external source) according to col. 16, lines 65-66 of Woolley et al.

7) Regarding claims 28 and 30, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in the consideration of claim 1, whereby:



--the claimed primary tag is met by the "netmaster" and the intermediate primary tags are met by the "assistant netmasters" according to col. 31, lines 16-29 of Woolley et al.

8) Regarding claim 29, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in claim 28, including:

--the claimed wherein the primary and intermediate primary tags is an active tags (powered by battery) and the one or more secondary tags are passive tags (powered by external source) according to col. 16, lines 65-66 of Woolley et al.

9) Regarding claim 31, Woolley et al. and Bledsoe render all of the claimed subject matter obvious as in claim 28, including:

--the claimed wherein the primary tags are mounted to a transport vehicle, the intermediate primary tags are mounted to shipping containers, and the secondary tags are mounted to items shipped in the shipping containers are met by Figs. 1-2, col. 16, lines 26-64 and col. 31, lines 16-29 of Woolley et al.

#### ***Allowable Subject Matter***

4. Claims 32-33 are allowed.

5. Claims 5 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-4, 6-12, 14-61 and 34-38 have been considered but are moot in view of the new ground(s) of rejection. See above new rejection for detail.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) US pat. Nos. 5565858, 5841365, 4656463


--Similar RFID tag wireless link systems.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963.

The examiner can normally be reached on Mon -Fri 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Benjamin C. Lee  
Primary Examiner  
Art Unit 2632

B.L.